ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

4500 South Sixth Street, Springfield, Illinois 62706
Thomas V. Skinner, Director
217-786-6892 • FAX 217-786-6357

June 9, 1999

Eagle Zinc Company
P.O. Box 340
Hillsboro, Illinois 62049

Attention: Mr. Tom Youngless

Re: LPC #1358070001 – Montgomery County
Hillsboro/Eagle Zinc
Compliance File

Dear Mr. Youngless:

An inspection of Eagle Zinc was conducted by Richard Johnson and I on May 20, 1999. The purpose of the inspection was to go through the on site buildings at your facility to determine whether any potential environmental concerns existed that had not been previously identified. Enclosed for your information is a copy of a report describing what was found during the inspection. You were informed during the inspection that numerous containers of chemicals identified below would have to be evaluated as to whether they contain a useful, viable product, or whether they have no use and will have to be discarded as waste. Hazardous and special waste determinations will then have to be made on the wastes, pursuant to 35 Illinois Administrative Code Sections 722.111 and 808.121, respectively. As with any solid waste, the generator is to determine whether the wastes possess any of the characteristics of a hazardous waste identified in 35 Ill. Adm. Code Part 721, Subpart C, or are listed hazardous wastes identified in 35 Ill. Adm. Code Part 721, Subpart D. These determinations can be made either through analyses or the generator's knowledge of the waste. Once a waste is determined to be a hazardous waste you must handle the waste in accordance with the requirements of 35 Ill. Adm. Code, Subtitle G, which includes but is not limited to, the accumulation standards of 35 Ill. Adm. Code Section 722.134.

The following materials were observed on site:

1. Stored in a caged area of the Carpenter's Shed were 42 five gallon containers of paint. The appearance of the containers suggested they had been around for a long time. You were told the paint was not considered a waste if the plant found a use for it, or they were used for their original intended purpose by someone else.

2. Along the east wall of the Carpenter's Shed was a quarter full 55-gallon drum labeled "Poly" and "Koppers." The material was reportedly a polyester adhesive.

3. A half-full 55-gallon drum labeled "U-7 Chemical Coolant" was stored among the lathes in the Maintenance Shop. You indicated that you would ask the shop's personnel about the drum.

4. 14 five gallon containers labeled "Q-Chromastic Plastic Super-Refractory Mortar Protects Furnace Walls" were stored on the second floor of the Maintenance Shop. A shipping tag on one of the containers indicated it was shipped December 15, 1941. You indicated that there was little likelihood that this material could be used at the site given its age.

5. In a hallway between the south room and the western part of the old laboratory building were 8 cardboard boxes with 4 foot long used flourescent lights in them, and a box half full of used high intensity discharge lamps. You said the lights were being accumulated in order to send to a recycling company. In lieu of regulation under 35 Ill. Adm. Code Parts 702 through 705, 720 through 726, and 728, the accumulation, transportation offsite, and management of mercury containing lamps that are also hazardous wastes are subject to the Universal Waste requirements of 35 Ill. Adm. Code Part 733. The standards for a small quantity handler (defined as a universal waste handler that does not accumulate more than 5,000 kilograms total of universal waste at any time) require a person to accumulate universal waste mercury-containing lamps in containers that are labeled or clearly marked with any of the following phrases: "Universal Waste Mercury–Containing Lamp(s)" or "Waste Mercury-Containing Lamp(s)", or "Used Mercury–Containing Lamp(s)." Each of the boxes in the old lab containing lamps must be properly labeled. You should also be aware that pursuant to 35 Ill. Adm. Code 733.115(a), a small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, **unless** the activity is solely for the purpose of accumulating such quantities as are necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving the need to accumulate for longer than one year. Enclosed for your information is a copy of the Universal Waste regulations.

6. Stored on the floor next to the above mentioned lamps were an estimated 15 pint-size metal containers. The rusty containers sounded like they contained a liquid, and none of them had labels. In the east room of the old lab were a few other unknown materials that had apparently been left in the old lab when the operation switched to the current lab. These include a 55-gallon fiberboard drum, a metal 1-gallon container with liquid in it, two quart-size chemical containers identified as aluminum and sterate related material.

7. A metal tote box about 6 feet high and 4 feet wide was observed in the Zebra Operation building. You indicated the white powder in the box may be soda ash. Wording on the outside of the box stated "Corrosive Solids NOS."

8. A number of used fire bricks were observed scattered near the combustion chambers of several of the old kilns, and what appeared to be used bags were scattered on the floor in various locations in the large Baghouse Building. These wastes would be defined as a "special waste", unless they can be certified as non-special waste pursuant to Section 22.48 of the Illinois Environmental Protection Act. Enclosed is an information sheet describing the certification process and an example of a certification for generators of solid waste.

Proper handling of the wastes on and off site will be required. We suggest the consolidation of any wastes at a single location until their contents can be identified and properly discarded off site. The containers should be labeled, stored in a safe manner, and segregated from each other so that their contents do not mingle if they leak. Any leaking or damaged containers should be placed into secure containers. The current circumstances of housing containers of unknown chemicals in several buildings could pose an explosion or toxic fume risk to firemen who may not be aware of the presence of the containers or the nature of their contents. If you find any other chemical containers on your property that you have no use for and that are not identified above, you should also handle them as described herein.

Other recommendations made during the inspection related to compliance with regulations other than indicated above. A locked store room along the west side of the Electrician's Shed is used to accumulate used oil in containers. Each container and aboveground tank with used oil must be labeled or marked with the wording "Used Oil", pursuant to 35 Ill. Adm. Code Section 739.122(c)(1). It was also recommended that you prepare and submit a Notification of Demolition or Renovation to the Bureau of Air Pollution ten days in advance of any demolition of a building or structure at the site, and that in addition to the removal of any asbestos, any special waste, or loose piles of materials such as zinc skimmings or residues that can be processed on or off-site, must also be removed before demolition.

Please immediately begin the process of identifying and accumulating the materials as indicated in this letter, and let us know the results as soon as you are finished. If you have any questions, please feel free to contact either Mr. Johnson or me at the above number.

Sincerely,

David C. Jansen
Springfield Region Manager
Field Operations Section
Division of Land Pollution Control

DCJ/dlv [illegible] ET WPD)

Enclosures

cc: IAGO, Maria Menotti

bcc: DLPC/FOS, Springfield Region
DRM/RPMS, Bob Rodgers
DWPC/FOS, Springfield Region, John Wells
DAPC/FOS, Springfield Region, Laurie Brinkmann
DLC, Greg Richardson
DLPC, Division File

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF LAND/FIELD OPERATIONS SECTION

RCRA INSPECTION REPORT

GENERAL FACILITY INFORMATION

USEPA ID #: ILD 980606941 IEPA ID #: 135 807 0001

Facility Name: Eagle Zinc Co. / Division of T.L. Diamond & Co., Inc. Phone #: 217/532-3971

Location: P.O. Box 340 Rural Route 1 County: Montgomery

City: Hillsboro State: Illinois Zip Code: 62049

Region: Springfield Inspection Date: 5/20/99 Time: 9:25AM-12:35PM

Weather ~70°F, Partly Sunny

TYPE OF FACILITY

Notified As: Regulated As: Not known

TYPE OF INSPECTION

CEI: CME/O&M: Sampling: NRR: F/U to: / / Citizen Complaint: CVI: CSE: (Other) X

NOTIFICATION INFORMATION NA

Notification Date: / / (initial) / / (subsequent)

PART A PERMIT INFORMATION NA

Part A Date: / / Amended: / / Withdrawn: / /

PART B PERMIT INFORMATION NA

Part B Submitted/Issued (circle one) / /

ENFORCEMENT

Has the company been referred to: USEPA / / (IAGO) / / 95 County State's Attorney: / /

ACTIVE ENFORCEMENT ORDERS NA

CACO: / / CAFO: / / Federal Court Order: / /

Consent Decree: / / IPCB Order: / / State Court Order: / /

TSD FACILITY ACTIVITY SUMMARY

Activity by Process Code	On Part A?	On Part B?	Activity ever done?	Closed?	Being done during insp?	Exempt per 35 IAC Sec:	On Annual Report 19 19 19

MEMORANDUM

DATE: June 1, 1999

TO: Division of Land Pollution Control, Division File

FROM: Richard Johnson, DLPC/FOS - Springfield Region

SUBJECT: LPC #1358070001 – Montgomery County
Hillsboro/Eagle Zinc
FOS

An inspection of Eagle Zinc's buildings was conducted on May 20, 1999. Accompanying me on the inspection was Mr. Dave Jansen, DLPC/FOS, Springfield Region. Met and interviewed during the inspection were Mr. Tom Youngless, Plant Manager, Mr. Dave Faust, Plant Employee, and Ms. Mary Jo Anzia, Environ employee. The purpose of the present inspection was to go through each of the onsite buildings at Eagle Zinc to determine if any potential environmental concerns existed. Previous inspections have concentrated on the waste on the ground at Eagle Zinc.

The tour of the buildings began at a lean-to type open shed located south west of the office building. A drum of unknown material had been observed in the shed on previous inspections. The drum was identified as grease for equipment and it had been moved. No other containers, tanks, or potential waste materials were found in the shed at the time.

South of the above-mentioned shed was the Electrician's Shed. As we walked through the shed, an old parts cleaner unit was observed. Nothing was in it. The back room of the shed contained an assortment of motors. Mr. Youngless said the motors could be used in the future.

South of the Electrician's Shed is the Carpenter's Shed. A table saw surrounded by various pieces of dimensional lumber was observed along the south wall. Setting in a caged area of the room were about 42 5-gallon containers of paint. The appearance of the containers suggested they had been around for a long time. Mr. Youngless confirmed the paint had been setting in the area for an extended period of time. He was told the paint was not considered a waste if the plant found a use for them, or they were used for their original intended purpose by someone else. However, if the paint is just abandoned, they need to be identified as a waste and a hazardous waste determination is required. Also, in the caged area was a 55-gallon drum of propionic acid. According to Mr. Youngless, propionic acid is used to surface treat zinc oxide materials in rubber products. The propionic acid is only occasionally used and mostly for experimental purposes. Mr. Faust added that the zinc oxide industry uses mostly stearic acid for the same

reason. Along the east wall of the shed was a quarter full 55-gallon drum labeled "Poly" and "Koppers." Mr. Youngless said the material was polyester with adhesive properties that would probably be used at the facility.

West of the Electrician's Shed is the Automotive Shop. Inside the shed is a parts washer unit with Safety-Kleen solvent. Mr. Youngless said Safety-Kleen comes to Eagle Zinc every 60 days to replace the solvent. Oil changes in the shop and other oil generated from machinery is accumulated in 55-gallon drums, according to Mr. Youngless. A locked store room along the west side of the Electrician's Shed accumulates the used oil.

North of the Automotive Shop is the Maintenance Shop. The southern portion of the building has an assortment of old metal forming machines. Included with the machines was a roller that formed metal into a circle, several small lathes, and a press. A half-full 55-gallon drum labeled "U-7 Chemical Coolant" was setting among the lathes. Mr. Youngless said he would ask the shop's personnel about the drum since he didn't know any particulars about it. In a small office in the south east region set two 5-gallon containers of "Morcoset Fire Brick Mortar." It was not explained why the mortar was in a little used office, but Mr. Youngless said that this type of material is still used by personnel at the facility. Going through a small parts storage room in the building, we encountered a door with a fire warning on it. The door led to a stairway to a second floor. More stored items were found on the second floor such as fixtures, light bulbs, canceled checks, old clock punch cards, a sign with "Eagle Picher" on it, and other miscellaneous items. Photograph shows a group of about 14 five-gallon containers labeled "Q-Chromastic Plastic Super-Refractory Mortar Protects Furnace Walls" (see photo 2). A shipping tag on one of the containers indicated it was shipped December 15, 1941. Mr. Youngless indicated that there was little likelihood that this material could be used at the site given the age. Also, on the second floor were a couple drums of boiler chemicals. These may have a use, according to Mr. Youngless. In a caged area were 4 five-gallon containers. Two of the containers were labeled "Plas Chem No. 27 Thinner" and had flammable warnings on the sides. Mr. Youngless said the material had to be used in conjunction with the other two containers to provide the desired effect. He thought the containers could, and would be, used in the future. I recommended that the flammable materials be taken to a secured area.

West of the Maintenance Shop is the Old Laboratory. Inside was a 55-gallon drum of oil setting in the south room. Mr. Faust and Mr. Youngless said the oil is used to lubricate the chain drive in the Block 2 production area. Why the drum would be located in this dilapidated building was not clearly understood. In a hallway between the south room and the western part of the building were 8 cardboard boxes with 4 foot long spent flourescent lights setting in them (see photo 3). Mr. Youngless said he was accumulating the lights to send to a recycling company. He wanted to get a pallet-size load of the lights so that it would be cost effective to have them picked up. A box half full of used high intensity discharge lamps was also in the same room. Setting on the floor next to the lights were an estimated 15 pint-size metal containers. The rusty containers sounded like they contained a liquid, and none of them had labels. In the east room were a few other unknown materials that had apparently been left in the old lab when the operation switched to the current lab. These include a 55-gallon fiberboard drum, a metal 1-gallon container with liquid in it, two quart-size chemical containers identified as aluminum and sterate related

material.

From the old lab we inspected what had been the old Carbon Recovery Building. This building currently houses stacks of pallets awaiting inspection and removal by a person that recycles them. Also, in the building were 4 or 5 cut up 55-gallon drums in the north west corner. Mr. Youngless said they no longer receive zinc feedstock in metal drums, but occasionally drums are used for collecting zinc oxide material. There are some oil products that Eagle Zinc gets in drums. The drums are cut for two reasons. One reason is to recover zinc oxide material that sometimes hardens in the drums, and the other reason is to make sure that the visually empty drums will be accepted for disposal at Litchfield-Hillsboro Landfill. Three apparently empty drums set in a water-filled elevator shaft pit in the north east corner. Mr. Youngless said these will be removed and disposed.

North east of the Old Carbon Recovery Building is a long building that houses several furnaces. The south end of the building is called Block 1 and it contains a non-operating rotary furnace. Zinc skimmings were caked onto the walls of the combustion chamber, and spilled out onto the nearby floor of this rotary furnace (see photo # 4). North of Block 1 is a Waelz rotary furnace in what is called Block 3. The furnace is part of a pilot project to reuse the Block 2 rotary oversize residue. Rotary oversize residue is generated by screening Block 2 rotary residue to take out the smaller carbon material which can then be sold or reused in the current process. According to Mr. Youngless, the pilot project with the rotary oversize took place in mid-April of this year. He said he was encouraged with the results. The concentration of the furnace residue from the Waelz furnace can be added to the mix storage area for later blending with other feedstocks for Block 2. Further north of the Waelz furnace is another non-operable rotary furnace in an area called Block 4. All of the furnaces are on the second floor of the building. Used fire bricks were also scattered on the floor in various locations within this building. An inspection of the lower floor level found either empty rooms, rooms with zinc residues on the floor, or areas where used and new fire bricks were being stored.

Small buildings east of the above-mentioned building were inspected. Nothing of importance was noted in them. We then walked to the Bulk Storage Building in the northern region of the property. South of the building were numerous piles of oversize rotary residue as well as some pallets and metal tote boxes. Inside the building were a couple of piles of off specification zinc oxide and zinc skimmings. Screened coal is also temporarily stored in the building for later use or sales. According to Mr. Youngless, businesses occasionally will want the slightly off specification zinc oxide in bulk. An end-loader is used to load trucks with the material. Also in the building were sacks to fill the zinc oxide, eight 55-gallon drums of floor sweepings with off-grade zinc oxide, and miscellaneous parts. The drums of off spec zinc material will be incorporated with the other zinc feedstock at a later time.

Zebra Operation is located in a building south east of the Bulk Storage Building and north east of the building with the Waelz furnace. Zinc feedstock in super bags from a sister plant is milled and then screened to obtain a certain size. Both the larger than desired screenings and the smaller than desired dust are collected and sent back to the sister company for reuse. The particles of the correct size are bagged for shipping to companies that use the material as a fungicide for mildew

control on roofing products. There are two muffle furnaces in the building housing Zebra Operation. Neither of the furnaces are being operated. Photo 5 shows a metal tote box about 6 feet high and 4 feet in diameter that is half full of white powder. Mr. Youngless indicated the material may be soda ash. Wording on the outside of the box stated "Corrosive Solids NOS." Mr. Youngless said he would look into what the material is and whether it can still be used. Mr. Faust stuck his hand in the white powder and also thought it was some type of mild caustic material.

South east of the Zebra Operation Building is a tall, long building that contains baghouses. According, to Mr. Youngless, only one of the numerous baghouses is being operated. This one baghouse receives zinc oxide from the Waelz furnace. Filter bags were said to be about 8 feet long. A number of what appeared to be used bags were dumped on the floor in various locations. These bags would be defined as a "special waste", unless they can be certified as non-special waste pursuant to Section 22.48 of the Illinois Environmental Protection Act. Zinc oxide is pulled into the baghouses and the air flows through the filters leaving the zinc oxide coating the bags' exterior. Shakers shake off the coating of zinc oxide so it falls to the bottom of the baghouse. It is then transported by screws and conveyors to a designated location to be placed in super bags and small bags. On the third floor of the building is a rotary drum that heats up the zinc oxide to impart a specific type of physical characteristic (density).

Materials and the current lab are in a building west but connected at the south end of the Baghouse Building. The lab is essentially a dry lab occasionally using acids and ethanol for testing. Mr. Youngless said tests on the product are done about every two hours. Most of the lab waste generated was said to be from cleaning certain size meshes. All wastewater goes down the lab sink into a separate 500-gallon plastic tank (see photo 6). When the tank becomes full it is taken over to the mixing area and added onto the zinc feedstock. According to Mr. Youngless, the wastewater contains a considerable amount of zinc so this is a way to reclaim it. We took pH paper strips and determined the pH of the wastewater was around 5. The tank was about three-quarters full.

The main storage area for zinc oxide is located south of the lab. We found wooden shelves containing paper bags marked with batch numbers. Apparently, each zinc oxide batch produced is sampled and tested. Samples are held until more shelf space is required, at which time some of the bags are emptied into a 30-gallon drum. A metal drum collecting discarded samples was found in among the shelves. The contents of the drum are incorporated back in the process as part of the zinc feedstock. Up a ramp on the top floor of the building is a room with numerous bags of the zinc oxide product ready to be transported offsite.

Walking east from the shipping dock we came into a part of a building which housed equipment to mill, blend and reheat the zinc oxide. We walked out of the building into a bag-house building with shakers for Block 2. Going past Block 2's cooling ducts, Mr. Youngless pointed out an area that will be part of the storm water retention system located northwest of Block 2. The rotary furnace in Block 2 was being worked on during the inspection and was not being operated.

We informed Mr. Youngless that he would have to determine which of the numerous containers of chemicals that were observed contained useful product, and which contained wastes.

Hazardous and special waste determinations will then have to be made on the wastes, pursuant to 35 I.A.C. 722.111 and 808.121. Proper handling of the wastes on and off site will be required. We suggested he consolidate into a single location all the various containers that they have no use for and to store them safely until their contents could be identified and properly discarded. We told him that under the current circumstances the buildings housing containers of unknown chemicals could pose a risk to firemen who may not be aware of the presence of the containers or the nature of their contents. We also reminded him that a Notification of Demolition or Renovation would have to be sent to the Bureau of Air Pollution 10 days in advance of any demolition of a building or structure at the site, and that in addition to the removal of any asbestos, any chemical container also be removed before demolition.

A letter detailing the results of the inspection and providing recommendations will be sent to Mr. Youngless.

We left the site at about 12:35 p.m.

cc: DLPC/FOS, Springfield Region
DRM/RPMS, Bob Rodgers
DWPC/FOS, Springfield Region, John Wells
DAPC/FOS, Springfield Region, Laurie Brinkmann
DLC, Greg Richardson
IAGO, Maria Menotti

Montgomery County - IDC 135807 0001 DATE: 5-20-99

Hillsboro / Eagle Zinc TIME: 9:25AM-12:35PM

NOT DRAWN TO SCALE
INDICATES LOCATION WHERE PHOTOS WERE TAKEN